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ABSTRACT

This collection of abstracts is part of a continuing series providing information on recent doctoral dissertations. The 35 titles deal with a variety of topics, including the following: (1) the relation of specific perceptual, cognitive, and training variables to reading skills acquisition of kindergarten students; (2) the implications of interest on the literal reading comprehension of early readers; (3) the effects of graphic organizers, text organization, and reading ability on the recall of text information; (4) the effects of training in selected SOI memory factors on reading readiness in kindergarten children; (5) children's use of story schema in successful and unsuccessful reading comprehension; (6) the role of text structure in the comprehension of information from prose passages; (7) comprehension processes of third grade children; (8) the reading strategies used by proficient adult readers to comprehend difficult expository text; (9) the effects of levels of propositional complexity and syntactic complexity upon reading comprehension; (10) young children's understanding and recall of a short story; (11) differential comprehension patterns of mature slow and fast readers in extended discourse; and (12) the instantiation hypothesis as a developmental, conceptual, and imaginal function. (FL)

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Reading, Comprehension, and Memory Processes:

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Abstracts of the following dissertations are included in this collection:

Alvoid, Kathy Lee
A STUDY OF THE RELATIONSHIP BETWEEN EXPLICIT SIGNALING OF ORGANIZATIONAL PATTERNS IN SELECTED CHAPTER-LENGTH AMERICAN HISTORY TEXT AND RECALL OF INFORMATION BY NINTH GRADERS

Bernstein, Lily Greenwood
THE DIFFERENTIAL EFFECTS OF AN INTERNAL MEMORY SUPPORT SYSTEM AND AN EXTERNAL MEMORY SUPPORT SYSTEM ON HIGH AND LOW ANXIOUS CHILDREN ON A READING TASK

Block, Stephen
THE RELATIONSHIP OF WORLD KNOWLEDGE AND CONCRETE OPERATIONS TO METAPHOR COMPREHENSION IN SEVEN- AND EIGHT-YEAR-OLD CHILDREN

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THE RELATION OF SPECIFIC PERCEPTUAL, COGNITIVE AND TRAINING VARIABLES TO READING SKILLS ACQUISITION OF KINDERGARTEN STUDENTS

Cecil, Nancy Lee
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EFFECTS OF GRAPHIC ORGANIZERS, TEXT ORGANIZATION, AND READING ABILITY ON THE RECALL OF TEXT INFORMATION

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THE EFFECTS OF TRAINING IN SELECTED SOI MEMORY FACTORS ON READING READINESS IN KINDERGARTEN CHILDREN

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TASK EMPHASIS DIFFERENCES WITHIN DISCUSSION ACCOMPANYING GUIDES FOR THREE LEVELS OF COMPREHENSION DURING CONTENT-AREA LESSONS

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A STUDY OF THE RELATIONSHIP BETWEEN EXPLICIT SIGNALING OF ORGANIZATIONAL PATTERNS IN SELECTED CHAPTER-LENGTH AMERICAN HISTORY TEXT AND RECALL OF INFORMATION BY NINTH GRADERS

Order No. DA8401186

ALVOID, KATHY LEE S., PH.D. *Texas Woman's University*, 1983. 290pp.

Descriptive research has documented the existence of organizational patterns in informational text. The relationship between the explicitness of organizational patterns and recall has been examined in limited research with short text. Authors of methods textbooks, however, contend that students would benefit from direct instruction about organizational patterns and ways such patterns are signaled in school textbooks.

This study was designed to examine recall of information in an intact classroom setting. The purpose of this dissertation was to study the relationship between the conjunctive signaling of organizational patterns to ninth-graders' recall of information from selected chapter-length American History text. The focus of the study was on the interaction between surface-level text features and student recall. Dependent variables included: (1) type of signal (explicit or implicit); (2) level of structural importance (high or low); (3) type of pattern (causal, example, or contrast); (4) type of text (main text, direct quotation, or related text).

Twenty-seven ninth grade subjects of average reading ability (Stanines 4, 5, and 6) were sampled from 44 ninth graders who participated in the study. A chapter-length text of 11,536 words was analyzed using a text analysis system called relational mapping. Sixty-four open-ended questions were developed to test recall. Questions were tied to testable research variables. Data collection, which took place over a 4-day period in an intact classroom, consisted of reading a segment of the chapter and responding to the open-ended questions.

Responses were scored dichotomously on criteria related to correct responses based on text information. Analysis of variance tests for repeated measures were used to analyze the data.

Results showed no significant relationship between type of signal and recall. Students recalled significantly more low level of importance ideas than high level of importance ideas. Causal and example pattern ideas were recalled more frequently than contrast pattern ideas. Text-type scores indicated a minimal descriptive trend which favored direct quotation text.

THE DIFFERENTIAL EFFECTS OF AN INTERNAL MEMORY SUPPORT SYSTEM AND AN EXTERNAL MEMORY SUPPORT SYSTEM ON HIGH AND LOW ANXIOUS CHILDREN ON A READING TASK

BERNSTEIN, LILY GREENWOOD, PH.D. *University of Southern California*, 1983. Chairman: Professor Hasterok

Anxiety has been found to be debilitative to many children in a school setting. This study investigated the effects of two memory support systems on a reading comprehension task with second, fourth, and sixth grade high and low anxious children. Half of the seventy-five subjects were rated as highly anxious on the Test Anxiety Scale for Children and half as low anxious. Within the two established anxiety groups, one third of the subjects were trained in the use of an internal support (imagery), one third received training with an external support (playback tape of rules to follow) and a control group which received regular instruction only. Subjects were matched on anxiety levels, grade levels, and reading comprehension levels. Raw scores on the Gates-MacGinitie Reading Test, comprehension subtest were used as pretest and posttest measures. The training phase lasted twenty days.

The research questions were: (1) would the two memory supports aid anxious children in a test situation, and (2) would there be an age by treatment interaction? An analysis of covariance procedure was used to analyze the data, with the Gates-MacGinitie Reading Test serving as a covariate. Overall, the results indicated no significance for treatment, anxiety, or for an interaction between treatment groups and grades. Grade 2 children profited from using the external support, Grade 4 from the internal support, and Grade 6 from both support systems. Treatment groups scored higher than did the control group at each grade level with both high and low anxious children.

It is recommended that: (1) A treatment be designed to combine counseling while teaching coping skills to anxious children. (2) The experiment be repeated for a semester time period. (3) The memory supports be made available during the final posttest. (4) The experiment be repeated using different grade levels and observing the traditional quartile cut-offs to obtain high and low anxiety level groups on the Test Anxiety Scale for Children.

(Copies available from Micrographics Department, Doheny Library, USC, Los Angeles, CA 90089.)

THE RELATIONSHIP OF WORLD KNOWLEDGE AND CONCRETE OPERATIONS TO METAPHOR COMPREHENSION IN SEVEN- AND EIGHT-YEAR-OLD CHILDREN

Order No. DA8326162

BLOCK, STEPHEN, PH.D. *Fordham University*, 1983. 148pp. Mentor: Rosa Hagin

This study proposed that in order to understand metaphors, children must have a repository of world knowledge and have developed concrete operational reasoning. The purpose of this study, therefore, was to investigate the relationship of world knowledge and concrete operations to metaphor comprehension in 7- and 8-year-old children.

The subjects in the study were 82 English-speaking 7- and 8-year-old children from the population of a northeastern school district. Forty 7 year olds and forty-two 8 year olds were tested. The sample also included 40 females and 42 males. World knowledge was measured by the Information and Vocabulary subtests of the WISC-R, concrete operational reasoning was measured by the Concept Assessment Kit--Conservation, and metaphor comprehension was measured by the Pollio and Pollio Test of Metaphor Comprehension. The data were analyzed by a multiple regression analysis which entailed the prior calculation of the means, standard deviations, and first-order correlations of the scores obtained by subjects on the three test instruments.

The results indicated that there was a significant relationship between metaphor comprehension and world knowledge and between metaphor comprehension and concrete operations. The findings also indicated that there was a significant relationship between metaphor comprehension and an optimum combination of the variables, world knowledge and concrete operations. Therefore, both world knowledge and concrete operations were good predictors of metaphor comprehension. However, the optimum combination of both independent variables, according to the results, were the better predictors of metaphor comprehension in 7- and 8-year-old elementary school children.

THE RELATION OF SPECIFIC PERCEPTUAL, COGNITIVE AND TRAINING VARIABLES TO READING SKILLS ACQUISITION OF KINDERGARTEN STUDENTS

Order No. DA8328805

BROOKS, ALETTE MARIE COMRACK, PH.D. *University of California, Berkeley*, 1983. 117pp.

30 kindergarten *Ss* were pretested using a phonic test, the Lindamood Auditory Conceptualization Test, a paired associates learning test, and a spatial concepts task. Non-reading *Ss* were randomly assigned to three experimental training groups. Control group lessons included experiences of an enriching nature, typical of a kindergarten readiness curriculum. Experimental materials were developed to test the theories of Gibson and Elkind. Lessons based on Gibson's theories included specific and detailed perceptual training in the distinctive features of symbolic stimuli. Training based on Elkind's theories emphasized more general developmental perceptual activities hypothesized to be necessary for a student to attain the perceptual maturity needed to learn to read. Following training, *E* administered simulated sight-word reading and phonetic decoding tests to all *Ss*. Results of regression analyses showed teacher judgment of student progress, knowledge of English phonics and auditory conceptualization skills taken together were the best overall predictors of ability to acquire new reading skills. Significantly depressed scores were found for *Ss* in the specific perceptual differentiation training group on symbol-word reading posttest scores. *Ss* who possessed fewer preacademic skills were at much greater disadvantage than peers when subjected to short-term, highly structured, specific perceptual training experiences. No other significant results were found in the analysis of differential effects of training. Results thus point to intrasubject experiential and developmental factors which seem to be of greater significance to early reading achievement than specific instructional techniques employed in the present study. Implications for making curriculum adjustments to meet the needs of all kindergarten students were discussed.

THE IMPLICATIONS OF INTEREST ON THE LITERAL READING COMPREHENSION OF EARLY READERS

Order No. DA8329791

CECIL, NANCY LEE, ED.D. *State University of New York at Buffalo*, 1983. 123pp.

The Problem. There has been no previous research conducted on the impact of interest on the literal comprehension of early readers. For older readers, that relation has been examined, but though many studies have yielded positive results, others have shown inconclusive or mixed results. Additionally, some studies have contained limiting factors in design.

The purpose of the current investigation was to provide modifications of earlier designs and to look at the early reader. The major questions guiding the research were (1) Are early readers able to answer a greater number of literal comprehension questions when interest in the content is high as opposed to low? (2) Is there a difference between the literal comprehension of girls and boys at this age level when each are presented with both high- and low-interest material? (3) Is there a difference between the literal comprehension of high- and low-ability readers when each are presented with both high- and low-interest material?

The Procedure. Eleven classes of second-grade students were categorized into high- or low-ability groups. These students were later given instruction in the use of an interest assessment device (IAD). Subjects were then asked to listen to beginnings of six stories on a variety of topics. Stories and questions were devised to make them as equal as possible. Following the listening of each story, interest in the story was measured for each student utilizing the IAD. Students then read the rest of the stories chosen as most and least interesting, and subsequently completed multiple-choice literal comprehension questions about them. Scores on the stories rated "most interesting" and "least interesting" were then compared statistically.

The Findings. Results of a simple t-test supported the conclusion that early readers scored significantly higher ($p < .01$) in literal comprehension when interest in the content was high than when it was low. Univariate analysis of the interaction by sex and ability group with the interest-comprehension relation revealed that neither sex nor reading ability were significant factors affecting that relation.

The Conclusions. Conclusions drawn from the results of this study are as follows: (1) Early readers are able to answer a significantly greater number of literal comprehension questions when interest in the content is high than when it is low; (2) Sex is not a significant factor in the difference between the comprehension of high-interest and low-interest material for early readers; (3) Reading ability level is not a significant factor in the difference between the comprehension of high-interest and low-interest material for early readers.

EFFECTS OF GRAPHIC ORGANIZERS, TEXT ORGANIZATION, AND READING ABILITY ON THE RECALL OF TEXT INFORMATION

Order No. DA8402261

COLEMAN, PAULINE ANITA BIGBY, PH.D. *The University of Michigan*, 1983. 291pp. Chairperson: Karen K. Wixson

This study examined factors thought to influence the learning of expository prose. Within a schema-theoretic perspective, it was hypothesized that learning from text would vary as a function of the interaction between instructional strategy, text structure, level of importance, reading ability, and time of recall. In addition, the investigation explored the influence of the type of recall task and the time spent on reading on the comprehension and memory of expository prose. Specifically, the study attempted to clarify conditions under which the graphic organizer would be expected to facilitate the learning of text information.

116 ninth graders were assigned to a reading ability group based upon recent standardized test scores. Subjects were subsequently randomly assigned to an instructional strategy group and a text structure group. The experimental group was instructed in the use of a graphic organizer as an aid to remembering text information. The control group was instructed to select an effective study strategy to remember text information. Subjects then completed a free recall task. One week later, subjects again completed a free recall task followed by a cued recall task. Dependent measures were frequency of recall and proportion of idea recalled at differing levels of importance.

Neither the graphic organizer nor text structure had a significant facilitative effect on frequency of recall performance. However, the examination of recall performance in terms of the proportion of information recalled at each level of importance revealed a significant facilitative effect for the recall of minor details in attribution text structure for all readers at immediate free recall. In addition, the graphic organizer facilitated recall for high ability readers under certain conditions.

Results indicated that the graphic organizer is an efficient instructional strategy which facilitates the comprehension and memory of text information for certain students. Findings suggest that providing students with a conceptual framework prior to exposure to the text facilitates learning of text information. The results support the view that the reader's schema directs and governs the interaction of reader and text knowledge. Implications are presented for future research and educational practice.

THE EFFECTS OF TRAINING IN SELECTED SOI MEMORY FACTORS ON READING READINESS IN KINDERGARTEN CHILDREN

Order No. DA8404446

COLUMBO, PAULINE GLORIA, ED.D. *United States International University*, 1984. 188pp. Chairperson: Arthur Gumbrell, Ed.D.

The Problem. The purpose of this study was to investigate if training Kindergarten-age students in the use of memory strategies, allied to the development of metamemory, would improve achievement in reading readiness.

Method. Based on SOI theory, a series of activities requiring memory of figural units processed visually and/or auditorally was systematically implemented in three Chapter I public school classrooms. Pre- and posttreatment data were collected from six classes, experimental and control groups, totaling 120 students. SESAT I Reading subtest was used to assess reading readiness and Wepman's Visual Memory Test and Auditory Memory Span Test were used to measure memory.

Results. The first hypothesis, which predicted statistically significant gains in reading readiness, was partially supported. The SESAT I total reading battery showed gains at the .055 level. The Aural Comprehension subtest demonstrated improvement at the .045 level. Although the Letters and Sounds subtest showed growth only at the .313 level, the test range may have been insufficient to provide valid data.

The second hypothesis, which predicted significant gains in visual memory, was rejected. The third hypothesis, which predicted gains in auditory memory, was close to significance at the .073 level; however, the direction was negative and further investigation is needed.

Age was an important factor in reading achievement with some indication that growth at the middle age-range was especially related to memory training. The relationship between age and memory was less clearly evident.

Results of the study appeared to support the premise that expanding the Kindergarten curriculum to include a program of memory training would be effective in promoting reading readiness.

TASK EMPHASIS DIFFERENCES WITHIN DISCUSSION ACCOMPANYING GUIDES FOR THREE LEVELS OF COMPREHENSION DURING CONTENT-AREA LESSONS

Order No. DA8400766

CONLEY, MARK WILLIAM, PH.D. *Syracuse University*, 1983. 155pp.

This study had one purpose, to develop a description of teachers' selection of information from a reading-instruction model and/or from the classroom in order to conduct lessons. Specifically, this study explored how four English teachers selected variables from Herber's (1978) reading-instruction model and from classroom information, e.g., information about text content, students, testing tasks, classroom discussions, and application activities. Inferences concerning this selection process were made in reference to teachers' available knowledge related to three-level guides, a strategy within Herber's model, and with respect to teachers' selection of that knowledge under different instructional conditions.

From a review of the literature, it was determined that a potential exists for teachers to vary both in information available from a reading-instruction model and in their selection of that information. It was also predicted that with three-level guides, these variations might emerge as differences in the tasks that teachers emphasize during their whole-class discussions. To establish the nature of each teacher's knowledge base, teachers were asked to complete a knowledge test related to use of three-level guides. Next, the naturally occurring lessons of these teachers that contained levels guides were tape-recorded and analyzed to create a description of teachers' task emphasis for each of the recorded lessons. Classroom information, such as information about text content, student ability levels, testing tasks, small group peer discussions, and application activities, was also collected and analyzed. Comparisons were made among teachers' existing knowledge, variations in classroom information, and teachers' task emphasis in order to describe how teachers' task emphasis reflects selection from available knowledge and from classroom information.

Findings of this study included the discovery that a teacher's available knowledge of a reading-instruction model influences that teacher's task emphasis. In addition, it was found that teachers' comparisons between this available knowledge and classroom information are more important with respect to some teachers' task emphasis than others' task emphasis. Further, the importance of these comparisons seemed to be associated with the likelihood of teachers adaptation of information from a reading-instruction model to instruction situations left unaddressed by that model. . . . (Author's abstract exceeds stipulated maximum length. Discontinued here with permission of author.) UMI

CHILDREN'S USE OF STORY SCHEMA IN SUCCESSFUL AND UNSUCCESSFUL READING COMPREHENSION

Order No. DA8326168

DREIER, ELIZABETH, PH.D. *Fordham University*, 1983. 241pp.

The purpose of the study was to examine the cognitive processes of children as they constructed the meaning of a folk tale, during reading. Each subject read the experimental story and responded to a structured interview. Protocols were scored for the presence or absence of both stated and unstated propositions represented in the story grammar, and for predictions. The *t* test for uncorrelated samples compared the performance of 8-year-olds vs. 11-year-olds and of comprehenders vs. non-comprehenders.

Major conclusions of the study were: (1) There are developmental differences in sensitivity to the differential salience of story elements, a critical factor in story comprehension. (2) The ability to maintain either/or hypotheses while awaiting further information is a highly effective strategy that may be critical to story comprehension.

Results indicate a continuum along which children move toward comprehension, and suggest observation techniques which may reveal potentially effective strategies to which instructional support can be directed.

THE DIFFERENTIAL EFFECTS OF SELF-QUESTIONING STRATEGIES ON THE READING COMPREHENSION OF ADOLESCENTS

Order No. DA8327372

DUHOUX, MARY A., PH.D. *The University of Iowa*, 1983. 248pp. Supervisor: Associate Professor Stewart Ehly

This investigation examined the effectiveness of self-questioning strategies in improving the reading comprehension of low achieving seventh graders. Sixty subjects from two junior high schools in a midwestern community participated in the study. Subjects were randomly assigned to one of four training groups: sentence self-questioning (SSQ), main idea self-questioning (MISQ), self-questioning-without-training (SQWT), and a read-reread control group (RRC). Subjects participated in a 5-day training program utilizing instructional booklets designed to train and provide practice in applying the assigned study strategy.

Results were analyzed using a split-plot 4 x 3 (training group x passage) ANOVA on two dependent measures: multiple choice test scores and detail summary scores. Results indicated that there were

no differences in the effectiveness of the training groups and no significant training group-by-passage interaction for either dependent measure. As expected, there was a significant passage effect.

Using the subjects' recorded time as a dependent measure revealed significant differences between training groups had a significant training-by-passage interaction. All self-questioning groups (SSQ, MISQ, and SQWT) spent more time reading and studying the first two passages than the read-reread control group However, on the third passage, the generalization passage, there were no significant differences between the training groups in the amount of time it took them to read and study the passages.

The overall results do not support the effectiveness of teaching low achieving adolescents self-questioning strategies in order to improve their reading comprehension. Possible reasons for the lack of significant results include the difficulty level of the self-questioning strategies for these subjects and the lack of subject's compliance. This study does, however, provide an alternative method for conducting instructional studies.

THE ROLE OF TEXT STRUCTURE IN THE COMPREHENSION OF INFORMATION FROM PROSE PASSAGES

Order No. DA8325650

FREEMAN, RUTH H., PH.D. *Oakland University*, 1983. 331pp.

This investigation determined the effect of text structure on the learning and retention of new information. In a repeated measures design, a four by four Greco-Latin square, 128 sixth grade subjects read four structurally varied connected discourse passages, on one of four topics, on four successive days. Passage structures were unaccompanied major concepts, major concepts accompanied by related causative details, major concepts accompanied by related resulting details, and major concepts accompanied by unrelated details.

The dependent measures were written recalls, immediately following each reading and one week after the first reading. Recalls were scored by number of idea units in six categories: central facts explicit, central facts implied, supporting details explicit, supporting details implied, prior knowledge inferences, irrelevant inferences.

The major premise that a greater number of major concepts would be recalled when the new information was presented as a series of central facts accompanied by related supporting details was refuted. Significantly more concepts were recalled after reading unsupported central facts texts.

Two findings tempered the results: (1) At delay, the initial advantage of the summary form was reduced over 50%, and (2) post hoc analysis of the data from the subgroup which learned 50% of the material indicates no significant difference in retention between related and unsupported texts. These results are interpreted to mean that central facts in related texts are stored in long term memory in association with supporting details; central facts in unsupported texts have fewer associative links which restrict recall at delay.

Results derived to test additional hypotheses indicate that: (1) Related texts led to greater numbers of recall inferences based on prior knowledge, (2) unsupported texts led to greater numbers of irrelevant inferences than related or unrelated texts, (3) the explicit nature of the responses became significantly more inferential when the material was learned and integrated with prior knowledge, (4) at delay, greater numbers of text-based inferences resulted from meaningfully related texts than from unsupported texts.

EXAMINING COMPREHENSION PROCESSES OF THIRD GRADE READERS

Order No. DA8405848

FULLERTON, SUSAN K., ED.D. *University of Pennsylvania*, 1983. 297pp. Supervisor: Dr. Morton Botel

The primary goal of this research was to examine comprehension processes of young readers. The eighty-two third-grade study participants represented a range of reading ability levels. The study was conducted in two phases.

In the first part, all students read and responded to eight unaltered text passages through a sentence verification technique (SVT). Four tests measured literal recognition performance where the reader was asked to recongize exact sentence wording as that read in the passage. The other four tests assessed ability on a gist recognition task where readers identified sentence paraphrases. Sentence verification performance was correlated to other outcome and pupil variables. Extreme differences in performance on the two SVT tasks were used to select eight students, four High Literal-Low Gist and four High Gist-Low Literal, for a study of comprehension processes.

In the second phase of the study, in-process reading behaviors of the eight selected students were examined as they generated think aloud protocols with four, difficult narratives. In the protocol procedure, text passages were presented sentence by sentence to each of the students individually. The student spoke aloud his/her thoughts to construct the meaning of the text. An oral retelling and questions about the author and the text followed each protocol generation. Transcriptions of the think aloud protocols were analyzed, quantitatively and qualitatively. The analysis system employed was Lytle's (1982) "Types of Moves" category system.

Findings suggest that the literal and gist sentence verification tasks measure different performance abilities. The literal recognition SVT tests were closely associated to word recognition abilities, while the gist recognition SVT tests were correlated to holistic scorings. Think aloud protocol data revealed that while there were between-reader comprehension style differences, individual readers were highly consistent in their use of moves. Results suggest that comprehension processes and characteristic comprehension styles of young readers can be explored effectively using think aloud protocols.

A COMPARISON OF THE EFFECTIVENESS OF TWO READING STUDY TECHNIQUES: THE SQ3R AND THE HM STUDY SKILLS PROGRAM LEVEL I MAPPING TECHNIQUE

Order No. DA8329653

GALLOWAY, JOHN SIGMOND, PH.D. *University of South Carolina*, 1983. 97pp.

The major concern of this study is to determine which of two reading study methods is the most beneficial in helping students improve their reading comprehension skills. One of the reading study methods selected to be investigated is one of the oldest, most famous reading study techniques, the SQ3R. In contrast to this well-known method is one of the most recently developed study programs, the *hm Study Skills Program Level I*, published by the National Association of Secondary School Principals in 1980. This study is primarily concerned with one facet of this program, that which is known as a mapping technique.

A study was conducted in which 321 seventh grade social studies students participated. These students were randomly divided into three groups and then further divided into three levels according to their reading comprehension levels as determined by their reading comprehension scores on the *Comprehensive Test of Basic Skills, Form U/Level H*, which was taken in April of 1983.

In addition, the findings of this study show that significant differences do exist at the .05 level in the test scores of those students who were in the mapping technique groups and those students who did not use a formal reading study method. However, the results of

this investigation do not show that a significant difference exists at the .05 level for those students who used the SQ3R reading study method as compared to those students who did not use a formal reading study method.

Finally, there is strong evidence that those students in the middle or average level definitely benefited much more than did those students in the high or low reading levels. Specifically, both the SQ3R reading study method and the *hm Study Skills Program Level I* mapping technique increased the scores made by the middle level students to a significance at the .01 level.

THE READING STRATEGIES USED BY PROFICIENT ADULT READERS TO COMPREHEND DIFFICULT EXPOSITORY TEXT

Order No. DA8325756

GIBSON, SANDRA UNDERWOOD, PH.D. *Georgia State University - College of Education*, 1983. 230pp.

Purpose. The purpose of this study was to identify comprehension strategies used by proficient adult readers to understand difficult expository text. *Strategy* was defined as a purposeful means of comprehending an author's message.

Methods and Procedures. Participants were fourteen students at Georgia State University who read passages selected from college-level textbooks that discussed topics of which readers had little knowledge. Participants were videotaped as they read aloud and verbalized their thoughts. They next reviewed their own videotapes and commented on their thoughts at places they recalled finding the texts difficult to understand. Participants were then interviewed to ascertain how closely their reading during the research paralleled their normal reading of textbooks. Transcripts were made of the texts, participants' verbalized thoughts, comments made during observation of the videotapes, and follow-up interviews. Transcripts were analyzed for reading strategies used to comprehend the passages.

Results. Identified strategies, verified during the follow-up interview as closely approximating the participants' usual methods of reading textbooks, were categorized and a "comprehension strategies classification scheme" was developed. A model of each participant's reading process was drawn up, and patterns of strategy use across subjects, termed "factual," "analytical," and "critical," were identified. Finally, a general model of comprehension strategies involved in reading expository text was developed. Components of this model were (1) preparation, (2) strategies used when reading proceeds with relative ease, (3) corrective strategies employed following the detection of a comprehension problem, and (4) closure strategies. This derived model was compared with relevant stages of Anderson's model of studying. Although the overall accuracy of the earlier model was validated, incompleteness was indicated in two components.

Conclusions. It was concluded that there are differences in the strategies used when proficient readers find the text relatively easy to comprehend and those used when a comprehension problem has been detected, and that corrective strategies are primarily text-related strategies such as rereading, as compared with extra-text strategies such as association.

EFFECTS OF LEVELS OF PROPOSITIONAL COMPLEXITY AND SYNTACTIC COMPLEXITY UPON READING COMPREHENSION

Order No. DA8326172

GILLESPIE, EILEEN ROSE, PH.D. *Fordham University*, 1983. 265pp. Mentor: Rita S. Brause

This study investigated the interactional effects of levels of propositional complexity and syntactic (structural) complexity upon reading comprehension. Syntactic (structural) complexity was measured according to the syntactic complexity formula developed by Granowsky (1971). Propositional complexity was measured according to propositional analysis (cf. Kintsch, 1974). Reading comprehension was determined by a score on the instrument designed by the investigator. The investigator-designed instrument consisted of thirty statements and test sentences of controlled and varied levels of combined propositional and syntactic complexity.

These hypotheses were investigated: (1) There will be no significant differences in reading comprehension scores between different levels of complexity; (2) There will be no significant difference in scores of subjects in the Alpha reading level and subjects in the Omega reading level; (3) There will be no significant interaction between levels of complexity and reading group.

The subjects of the study, 100 students in grade six and grade eight in the public schools of Central Islip, Long Island, New York ranged in age from 11 to 13 years. Based upon the *Stanford Achievement Test* grade equivalent scores, the subjects were designated as Alpha (higher) reading level or Omega (lower) reading level.

The data was analyzed by two two-way analyses of variance. A two-way analysis of variance was performed on the sixth grade data. A separate two-way analysis of variance was employed on the eighth grade data. The population was separated according to grade level and reading group. The .05 level of confidence was established.

The three null hypotheses were retained for grade six. For grade eight, the first two null hypotheses were retained but the third was rejected. The data of the study indicates that the difficulty which results from the combined propositional and syntactic complexity of a sentence is a factor to be considered in reading comprehension. The findings further suggest that for both grade levels, sixth and eighth, grouping does relate to performance on different levels of complexity. The levels of complexity need to be reexamined since the difficulty was not as anticipated.

AN INVESTIGATION OF FACTORS AFFECTING MAIN IDEA COMPREHENSION: ORGANIZATIONAL STRUCTURE, MEASUREMENT TYPE AND ABILITY LEVEL

Order No. DA8325213

GOLD, JOYCE GRAD, PH.D. *New York University*, 1983. 164pp. Chair: Professor Lisa Fleisher

This study was undertaken to investigate the comprehension of Average and Disabled readers on inductively organized paragraphs, paragraphs where the main idea is not stated in the first sentence.

The subjects were 169 students; half were Average readers, (fourth graders reading on level) and half were Disabled readers (sixth graders reading on fourth grade level). All the children took an inductive reasoning test to assess their schema for induction. Each child also read 48 short paragraphs, half were deductively organized with the main idea in the first sentence and half were inductively organized. A randomly selected half of each ability group identified the main idea of these paragraphs through multiple choice questions while the other half verbally retold the main idea. Sixteen additional inductively organized paragraphs were administered to a random half of each ability group to assess detail recall.

No ability group differences were found on the inductive reasoning test or on the multiple choice questions. On the retell test Average readers scored higher than Disabled readers on deductive items. In comparing Average to Disabled readers Average readers also made a significantly larger percent of first sentence type errors on the inductive retell items indicating they were overapplying the deductive strategy. Disabled readers' errors were more random. The more organized approach of the Average readers was also evident in the significantly higher correlation between main idea recall and detail recall for this group.

Inductive comprehension was more difficult than deductive comprehension for both groups and the task combining inductive comprehension with retell resulted in a low, truncated range of scores. In spite of this, the retell test proved more sensitive to ability group differences than the multiple choice test. Test type was found to be a major factor in all the results. Average readers, even when they are experiencing difficulty, appear to be using strategies to comprehend the paragraph as a whole while Disabled readers appear to experience problems at the more basic level of strategy activation.

THE EFFECTIVENESS OF THE CLOZE PROCEDURE AS AN INSTRUCTIONAL TECHNIQUE FOR IMPROVING READING COMPREHENSION AND ENHANCING DIVERGENT PRODUCTION

Order No. DA8328238

GREEN, DEWAUNDRE C., ED.D. *University of San Francisco*, 1982. 124pp. Chairperson: Susan Evans

The purpose of the study was to determine the efficacy of the cloze procedure as an instructional technique for improving reading comprehension and enhancing divergent production (creative thought). The study compared three instructional strategies: (1) the product approach, which accepts only the exact word for the deleted language pattern, (2) the process approach, which accepts synonyms for the deleted language pattern, and (3) traditional reading instruction.

Ninety-six sixth grade students were randomly assigned in equal proportions to the three instructional groups. The study used a modified posttest-only control group design involving the use of two experimental groups exposed to different forms of the same treatment, cloze procedure, and a comparison group exposed to traditional reading instruction. The groups were exposed to the same subject matter.

Dependent variables consisted of two measures of reading comprehension; an Investigator-Made Cloze Test and the comprehension scale of *Gates-MacGinitie Reading Tests*, and two measures of divergent production, Plot Titles, "Names for Stories," and Associational Fluency, "Similar Meanings," Scales of *Guilford Creativity Tests for Children*.

To determine whether on each of the measures employed, significant differences existed among the means of the three instructional groups, a series of four one-way analyses of variance were run. In addition, where significant differences were obtained, posteriori comparisons of selected pairs of means were effected through use of the Scheffe HSD procedures which were employed to determine the localization of the obtained significant differences.

The results of the study were as follows: (1) Students receiving instruction via the process method of instruction showed significant increases in reading comprehension scores and divergent production scores than either the product group or those receiving traditional reading instruction, (2) also in all instances the product approach instructed students achieved higher (although not significantly) mean scores than the group instructed traditionally.

It would appear that the cloze procedure method of teaching reading comprehension, especially instruction via the process approach, is an extremely viable and efficient method of instruction.

YOUNG CHILDREN'S UNDERSTANDING AND RECALL OF A SHORT STORY

Order No. DA8326174

GRESALFI, MARIE MARTIN, PH.D. *Fordham University*, 1983. 153pp. Mentor: Lillian Restaino-Baumann

The investigator hypothesized that very young children construct components of story schemata, and that changing structures of story schemata would be apparent in the protocols of children between the ages of 3 and 5.

The subjects included 3, 4, and 5 year olds, 10 at each age level. These subjects were evaluated as being articulate and able to provide comprehensible verbal responses to the interview.

A fable was used, and analyzed. Analysis of micropropositions was based upon Kintsch's (1977) method, as described in a handbook by Turner and Greene (1977). Analysis of macropropositions was based upon van Dijk's method (1977). A story grammar analysis was performed, based upon Kintsch (1977).

The interview was carried out in each subject's home. The interview allowed for free-recall, probed recall, and picture-assisted probed recall.

The results indicated that where memory limitation was less likely to interfere, namely, in Episode 3, most of the 3 year olds recalled all three macropropositions. The 4 year olds recalled more in Episode 2 than did the 3 year olds, indicating a developmental decrease in the reliance on recency in recall of responses.

The 5 year olds recalled the story categories in a manner most similar to that of older children and adults and indicated a strong awareness of the need to recall the important parts of the story, rather than those parts most recently heard. They recalled the Exposition macropropositions more frequently than any other category. This finding is consistent with findings in the research literature on older children and adults, such as that of Stein and Glenn (1978), and Mandler and Johnson (1977).

The investigator concluded that, while 5 year olds were the most successful in remembering the micropropositions of each episode, of transforming these into the macropropositions, and of weighing the components of these episodes, nevertheless, the 3 and 4 year olds demonstrated a sophisticated command of the story structures, at both microproposition and macroproposition levels.

THE EFFECTS OF VARIED TEXT CONDITIONS ON FIELD INDEPENDENT AND FIELD DEPENDENT READERS' FORMATION OF INFERENCES IN EXPOSITORY TEXT

Order No. DA8323375

HANSEN, RUTH M., PH.D. *The University of Wisconsin - Madison*, 1983. 129pp. Supervisor: Professor Wayne Otto

Field independent individuals appear to process text in an analytical manner; they impose or provide an order when necessary. On the other hand, field dependent individuals process text in a global manner; they are not likely to disregard distracting statements or reorganize the information presented. Studies suggest that an individual's processing style may influence comprehension of what is read. Because all relationships between sentences or paragraphs in a selection are not explicitly stated, the reader is required to form inferences for understanding. The purpose of this study was to determine if the individual difference dimension of field independence and field dependence influences poor and average readers' formation of inferences in texts which require selective attention to and/or reorganization of the information given.

Thirty-two subjects were selected from a seventh grade class. Eight subjects were identified for each of four categories--field independent-poor, field dependent-poor, field independent-average, and field dependent-average. Subjects were assigned to categories

on the basis of scores on the *Group Embedded Figures Test* (field independence or field dependence) and the *Gates MacGinitie Reading Test* (average or poor). Passages which required the reader to form inferences from the information presented were constructed to examine inference formation in two types of text. One passage (relevant) presented information in an orderly manner and a second passage (distractor) had distracting sentences interspersed in each paragraph.

Eight hypotheses were tested with planned comparisons. Field independent average readers scored higher than field dependent average readers in the distractor passage while there was no difference between field independent and field dependent average readers' scores for the relevant passage. Both field independent and field dependent poor readers had difficulty with inference formation in the distractor passage. Field dependent poor readers, however, formed more inferences than field independent poor readers with well organized text.

THE EFFECTS OF STORY STRUCTURE IN TEXTS ON THE READING COMPREHENSION OF 1ST AND 2ND GRADE STUDENTS

Order No. DA8328761

HARTSON, ELEANORE KIMMEL, ED.D. *University of California, Berkeley*, 1983. 151pp.

The purpose of this study was to investigate the effect of story structure on the reading comprehension of beginning readers. The rationale for this work emanates from the body of story grammar research.

It was predicted, first, that reading comprehension scores of first and second grade students would be significantly higher for stories with structures that conform to the story grammar than for stories with structures that vary from the grammar. Second, reading comprehension scores for second grade students would be significantly higher on stories with variant structures than for first grade students. And, third, a significant interaction in reading comprehension scores would be found between variant story structure and grade level of students.

Thirty-two first grade students and thirty-two second grade students, of average or above average reading ability, read two versions of two original stories designed to resemble basal reader or beginning-to-read stories. Each story was written at a readability level appropriate for each grade level. Within each grade level story, three versions of the story were created: well-formed structure, variant structure-deleted, and variant structure-reordered. The subjects' reading comprehension was determined by scores on a retelling task.

Planned contrasts were used for testing the hypotheses and applied to each story. The results for Story 1, using modern fiction, were: The well-formed version was better comprehended than the variant versions by both first and second grade students. The findings for Story 2, using a folktale, were: Subjects at both grade levels comprehended the variant versions as well as they comprehended the well-formed version. Second graders' reading comprehension was not significantly higher on stories with variant structures than first graders'. No significant interaction in reading comprehension scores was found between variant story structure and grade level of students.

Implications based on findings for Story 1 suggest that story grammars be used as a model in constructing well-formed stories for instructional materials. Results for Story 2 demonstrate the impact of familiar folktale structure on comprehension and in turn the importance of including well-written folktales in reading instruction. Recommendations for future research and implications for instruction are presented.

A CROSS-CULTURAL STUDY OF THE EFFECTS OF CULTURE-SPECIFIC SCHEMATA ON CHILDREN'S COMPREHENSION OF METAPHORIC LANGUAGE

Order No. DA8321751

HENAO ALVAREZ, OCTAVIO, PH.D. *The University of Wisconsin - Madison*, 1983. 188pp. Supervisor: Dr. Dale D. Johnson

Metaphors are widespread in oral and written communications. The process of metaphor comprehension has been portrayed by feature matching theories as a search of the semantic features shared by the topic and vehicle. However, it has been suggested that understanding metaphors implies a much more complex task than that of matching attributes. Specifically current notions of schema theory seem likely to generate a more thorough and coherent explanatory model of metaphor comprehension.

The purpose of this study was to investigate the effects of culture-specific schemata on comprehension of metaphoric language and, concurrently, to examine the empirical relevance of a model of metaphor comprehension involving schema-theoretic assumptions suggested by Ortony (1979).

Subjects, 55 American and 55 Colombian sixth grade students, were first administered a Semantic Attributes Inventory and, a week later, a Metaphor Comprehension Test. The first instrument consisted of 64 three-choice items and was designed to assess the subjects' knowledge about the semantic attributes shared by the topics and vehicles of 32 metaphors. The second instrument consisted of 32 four-choice items and was developed to measure subjects' ability to identify the standard interpretation of the metaphors. These metaphors were collected from diverse published sources in the United States and Colombia.

It was hypothesized that, even if the two groups of subjects were equally knowledgeable about the semantic attributes shared by the topics and vehicles of all metaphors, each group would perform significantly better when interpreting the metaphors native to its own culture.

Results of analyses of covariance indicated the following: (1) Both the American and the Colombian children performed significantly better when interpreting metaphors that were native to their respective cultures. (2) The American children performed significantly better than the Colombian children when interpreting American metaphors, and the Colombian children performed significantly better than the American children when interpreting native Colombian metaphors.

These results are clearly consistent with the findings of previous research in schema theory which assign a paramount role to culture-specific schemata in reading comprehension. Furthermore, these results provide empirical support for a model of metaphor comprehension involving schema theoretic assumptions suggested by Ortony (1979).

DIFFERENTIAL COMPREHENSION PATTERNS OF MATURE SLOW AND FAST READERS IN EXTENDED DISCOURSE

Order No. DA8407195

HICE, SUSAN MAUDIE GIBSON, PH.D. *Michigan State University*, 1983. 164pp.

The purpose of this study was to discover whether mature readers with slow or fast reading rates differed in the types of information recalled after reading. The study population contained 133 high school seniors who were good readers and high achievers. They were termed "mature" based on definitions of psychological maturity in perception and cognition. All had good near-point acuity.

Four categories of comprehension were described in ascending order of structural complexity: detail, microstructure, main idea, and macrostructure. Multiple-choice questions testing recall in these four categories were constructed from a structural map of the study discourse. (Other study variables were Nelson-Denny Reading Test scores, SAT scores, and rank in class.)

Mature readers were asked to read once through a general-interest *Scientific American* article of 2,698 words (4,385 syllables), using their normal internal purpose and rate for such assignments. Subjects were timed; recall in the four comprehension categories was assessed.

Rate of discourse reading was correlated with each of the four comprehension variables; only microstructure (detail relationship) was statistically significant: $r = .1609$. (Nonsignificant trends were that main idea was consistently positive, whereas detail and macrostructure were positive or negative, depending on calculation methodology.) It was concluded that (1) either speed facilitates connecting neighboring details, or (2) mature slow readers integrate microstructures into existing constructs, employing considerable idea transformation, so that the microstructures become less recognizable in their original form.

Post hoc study groups of the 30 slowest ($\bar{X}$ = 148 wpm) and 30 fastest ($\bar{X}$ = 324 wpm) discourse readers were compared based on mean comprehension patterns. An apparent interaction was noted between rate groups and micro- and macrostructure comprehension: slow readers appeared superior in macrostructure and fast readers in microstructure. Middle-rate readers ($\bar{X}$ = 212 wpm) excelled in detail comprehension.

Theories maintaining that slow reading is a cause of poor comprehension received little support within this population. It appeared more likely that rate is a reflection of the type of comprehension occurring. A "structure" hypothesis was presented maintaining that mature slow readers process and structure essentially all ideas encountered, using inductive reasoning for questions; mature fast readers focus on a smaller subset of ideas, using deductive reasoning for questions.

CHILDREN'S COMPREHENSION OF TIME-COMPRESSED DISCOURSE AND AMOUNT AND TEMPORAL DISTRIBUTION OF EXPOSURE TIME OF ADJUNCT PICTURES

Order No. DA8328102

HOMSANIT, PRASAK, ED.D. *Indiana University*, 1983. 75pp.
Chairperson: Dr. Lawson Hill Hughes

Various attempts have been made to prevent the decrease in listening comprehension of time-compressed discourse, with some success through the use of adjunct pictures. In the present study, third and fourth graders' comprehension at 150, 225, and 300 words per minute (wpm) was studied when each picture (a) had its onset prior to sentence onset, (b) had its offset after the sentence's completion, or (c) both. Concepts of mathemagenic behavior and late processing were invoked. The independent variables were temporal distribution of pictures, amount of additional exposure time of the pictures (.5 and 1.5 sec), and wpm rate. Tape-synchronized filmstrips formed 18 experimental and six control conditions. There were 120 participants. They listened to a 20-sentence story as they looked at 20 pictures. Then, they were given a cued-recall test. There were three analyses of variance, with p set at .05. A 3 x 2 x 3 analysis showed rate significant but neither temporal distribution nor additional exposure time was significant. Experimental and control conditions were combined in a 2 x 3 analysis that showed none of the additional-exposure-time conditions to be superior to the control condition of simultaneous onset and offset of sentence and picture. Finally, six control groups were combined in a 2 x 3 analysis, with 0- and 4-sec pause time between sentences, and the three rates. At 300 wpm, performance was significantly higher at 0 sec than at 4 sec, an unanticipated result, for which a tentative explanation was suggested in terms of an attentional factor.

A CHILD'S SENSE OF STORY: A TWO-YEAR STUDY

Order No. DA8401139

ICE, MARIE ANN, PH.D. *University of Missouri - Columbia*, 1983. 230pp.
Supervisor: Dr. Dorothy Watson

This descriptive study was designed to ascertain a child's sense of story by collecting a corpus of oral stories generated by ten students during their first and second grade educational experiences. The purposes of the study were to determine whether or not: (1) a teacher's theoretical orientation to reading was related to a child's production of story elements (2) elicitation procedures were related to production of story elements, and (3) identifiable developmental changes were reflected in story elements from the beginning of first grade to the end of second grade. The story elements analyzed were sources of stories, stage of narrative form, formal elements, number and kinds of characters, connectors between clauses, and minimal terminable units.

Findings indicated that theoretical orientations were reflected in source of story, formal elements, number and kinds of characters, number of connectors between clauses, and number of T-units. Elicitation procedures were reflected in source of story, and number and kinds of characters. Developmental changes were evidenced in source of story, stage of narrative form, formal elements, number and kinds of characters, connectors between clauses, and T-units.

For both schools the children's story concept did not differ greatly. Some students had a slightly more advanced concept for some story elements than did other students. Children did not advance at the same pace in story concept formation. Those whose story elements more closely approximated the adult's definition of narrative entered school with more advanced story elements.

Educational insights obtained were: (1) Advances in knowledge and use of oral or written language become fundamental procedures applied to other language forms. Learning experiences are needed to encourage this phenomenon. (2) Learnings are needed which allow students simultaneously to discover ideas and conventions of language. (3) Learning experiences are needed which allow students to discriminate between oral and written language. (4) Learning experiences are needed which allow students to become more flexible in their thinking--thus becoming less constrained by preexisting conditions or situations.

CHILDREN'S COMPREHENSION OF A COMPLEX LINGUISTIC STRUCTURE IN ORAL AND WRITTEN LANGUAGE

Order No. DA8402416

JACQUETTE, BARBARA LEECH, PH.D. *Arizona State University*, 1983. 246pp.

The study was designed to investigate children's comprehension of a complex syntactic structure in both oral and written language. Specifically studied were: (a) the relation of children's comprehension of the structure in oral language to their comprehension of the structure in written language, and the order in which oral versus written comprehension occurred; (b) the relation of children's comprehension to intelligence, level of cognitive development, reading achievement, and previous exposure to books; and (c) the possibility that comprehension in either oral or written language could be improved by reading a passage explicitly demonstrating the semantic relations encoded by the structure.

C. Chomsky's Case 3 "ask" construction was studied because it is a commonly-used but highly complex structure with important meaning-bearing elements deleted and because it had been studied previously in oral language but not in written language. Sixty fourth-grade children from two classrooms in a middle-class school district participated. In part one of the study, all 60 children were assessed using cloze passages, an oral-language exchange, an inventory of previous literary exposure, and scores from school records on tests of IQ and reading achievement. In part two, 12 of the 60 children were studied more intensively using two additional oral-language assessments, an assessment of conservation, and an oral reading and interview.

Analyses of the children's performances on oral and written screening assessments revealed that 86.7% of the children had not demonstrated full comprehension of the construction in either oral or written language and, further, that comprehension of the construction was greater in written language than in oral language. Intercorrelations of the children's scores on all measures indicated that children's comprehension of the construction was significantly related to scores on tests of IQ and reading achievement and to level of cognitive development. Analyses comparing the children's performances on the oral and written screening assessments and the oral and written post-training assesments revealed that after reading an explicit training passage children's comprehension of the construction improved significantly in both oral and written language. Comprehension in oral language, however, improved more than comprehension in written language.

EMERGENT READING BEHAVIORS OF FOUR-YEAR-OLD CHILDREN IN A STORYBOOK READING CONTEXT

Order No. DA8326399

JOHNSON, SHARON COMMONS, ED.D. *Texas Tech University*, 1983. 263pp. Chairperson: Dr. Barbara Simmons

This study investigated emergent reading behaviors of twelve four-year-olds in a storybook reading context. The purpose was to observe and identify reading behaviors and strategies, analyze specific behaviors for evidence of a hypothesized progression, and examine the use of strategies and other behaviors, the effect of different books, and the relationship between demonstrated emergent reading behavior and other measurements of oral and written language.

The researcher read twice weekly at a preschool beginning in September. Beginning in December selected subjects read to a cradle of dolls in the presence of the researcher every two weeks over a six-month period, making selections from eight predictable books. Sessions were audiotaped, transcribed, and coded under three categories: scaled reading behaviors, strategies, and nonscaled behaviors. Scaled reading behaviors in the hypothesized progression were: (1) making-up, (the least refined), (2) playreading, (3) paraphrasing, (4) paraphrasing in conjunction with the use of actual words, less than 50%, (5) paraphrasing in conjunction with the use of actual words, 50% or more, (6) borrowing, (7) actual words only, less than 50%, (8) actual words only, 50% or more, (9) "What does it say?" type question in conjunction with a scaled reading behavior, and (10) reading by sight.

Subjects displayed all scaled behaviors; scaled behaviors 5 and 8 predominated. Analysis of scaled behaviors of individuals revealed two distinct groups: low emergent readers (average percentage of emergent reading for entire study below thirty percent) and high emergent readers (above forty-five percent). Significant differences were found between the two groups on Robinson's Test of Writing Vocabulary (1973) and Clay's Concepts About Print Test (1972). Statistical correlation of scaled behaviors and sessions revealed no evidence of a progression based on the hypothesized hierarchy. Comparison of the six younger subjects to the six older subjects yielded some evidence of a progression.

Questioning and self-correcting were the most frequently used strategies, occurring primarily in conjunction with scaled reading behavior. In contrast, the majority of nonscaled behaviors occurred in conjunction with no scaled reading. Books appeared to be a major influence on the type of scaled reading displayed.

THE INSTANTIATION HYPOTHESIS AS A DEVELOPMENTAL, CONCEPTUAL, AND IMAGINAL FUNCTION

Order No. DA8405668

KLAWITTER, KENNETH KARLTON, ED.D. *University of Maryland*, 1983. 226pp. Supervisor: Dr. Richard Jantz

The purpose of the present replication was to investigate the instantiation hypothesis as (a) a developmental trajectory, (b) a function of conceptual retrieval, and (c) a function of imaginal coding. Instantiation has been defined as the process of generating and storing particular exemplars for the more general terms in a sentence as an aid for memorial recall. A review of the literature, however, indicated that both discrepancies in results and gaps in the knowledge existed concerning the instantiation process.

A total of 234 subjects in grades four, six, eight, ten, and twelve were studied for instantiation abilities. The subjects attended a suburban school district and were of average or above average intelligence and reading ability. An analysis of variance, covariance, and t-tests determined mixed support for the instantiation hypothesis as a developmental gradient.

Cue words that existed in a superordinate/subordinate conceptual relationship or that had been empirically rated as being high in image evoking value were selected for post hoc analysis. A chi square statistical design and tests for correlated and independent samples were used to investigate the functional significance of conceptual retrieval and imaginal coding. In both instances support was gathered that indicated the functional significance of the alternative hypotheses.

The results collected implied that the instantiation hypothesis, as it now exists, needed modification to adequately account for the study's findings. The study provided some evidence of the hypothesis being generalizable to children. Cue words that were presented as a conceptual hierarchy or as being rated high in image evoking value, also seemed to have significant effects that were not explainable within the limitations of the present instantiation hypothesis. Finally the post hoc analysis conducted did not support a developmental hypothesis or significant differences within or among males and females. Further research was recommended to resolve this intriguing issue.

SCHEMA THEORY AND THE ROLE OF READER PERSPECTIVE IN LANGUAGE COMPREHENSION AND MEMORY

Order No. DA8328086

NEWSOME, GEORGE LANE, III, ED.D. *Indiana University*, 1983. 107pp.
Chairperson: Dr. Donald J. Cunningham

The affect of reader perspective on encoding, storage, and retrieval process in text comprehension and memory and how this effect may differ among individuals as a function of cognitive style was investigated in two experiments. In both experiments, subjects were given an embedded figures test and then read a story about two boys who played hookey from school and went to the home of one of the boys from either a burglar or a home buyer perspective or from no directed perspective. Subjects who read the story from either the burglar or the home buyer perspective then recalled the story from either the perspective they read it from or the alternative perspective. Subjects in the control group read and recalled the story from no directed perspective. In experiment one the recall and recognition test were given immediately after the story was read. In experiment two, the recall and recognition tests were given four days later. Performance on the recognition test indicated the effect of reader perspective on what information gets encoded into memory and performance on the recall test indicated the effect on retrieval processes. Embedded figures test scores were a measure of individual differences in cognitive style.

The results of the immediate recognition test indicated that subjects who read the story from either the burglar or the home buyer perspective correctly recognized more items important to the burglar perspective. The results of the recall test indicated that reader perspective affects retrieval processes. Performance on the immediate recall and recognition tests showed no difference in recall of either burglar or home buyer information as a function of cognitive style. On the delayed test, however, high and low scores on the embedded figures test differed in ways that suggest that subjects used either the structure of the text itself or their world knowledge to organize and retrieve story information.

COMPREHENDING PROCEDURAL INSTRUCTIONS: THE INFLUENCE OF COMPREHENSION MONITORING STRATEGIES AND INSTRUCTIONAL MATERIALS

Order No. DA8328682

SCHORR, FRANCES LESLIE, PH.D. *Cornell University*, 1983. 129pp.

The two goals of this thesis were: (1) to examine the comprehension monitoring strategies individuals employ when trying to comprehend procedural instructions and (2) to determine how comprehension may be affected by varying such instructions. In order to accomplish these goals a taxonomy of comprehension monitoring strategies was developed. This taxonomy was then used to code the videotaped performances of 68 college and 18 high school students as they attempted to assemble a toy loading cart. The subjects were given instructions consisting of either text alone, illustrations alone, or a combination of the two. The instructions were also varied so that half of the students received directions in which the operational or "how to" information was explicit, while the other half received directions in which this information was more general.

The results showed that, for the group of college students, several of the strategies included in the taxonomy were related to at least one of two measures of comprehension: the speed and accuracy of performance. The findings also indicated that, regardless of the mode of presentation (i.e., pictures, text, or a combination of the two), college students using instructions that contained explicit operational information assembled the model more accurately than those using more general instructions. Explicit operational detail, however, did not affect the speed of performance. One factor that was found to influence this speed was the mode of presentation. College students given instructions that included illustrations performed the assembly faster than those given instructions that consisted exclusively of text. Pictures, however, were not always advantageous. The text, for example, was found to convey certain kinds of qualifying information better than the illustrations.

Thus, based on the performance of college students, it was recommended that both pictures and text containing explicit operational information be used in the design of procedural instructions. In contrast, the evidence obtained from the group of high school students did not support these conclusions. Since the sample of high school students was small, it was suggested that future research be conducted to examine the ways in which these students differ from other groups of readers.

THE EFFECTS OF TEXT COHESION ON READING COMPREHENSION

Order No. DA8405087

SMITH, MAY JESSUP, PH.D. *University of Georgia*, 1983. 193pp.
Director: James A. Dinnan

In order to investigate the effects of cohesion on the reading comprehension of seventh-grade students, 14 passages, with similar readability formula scores, were analyzed according to Halliday and Hasan's system and assigned scores of cohesive density and distance. Each passage was also given a frequency score for each of the five types of tie. A comprehensibility score for each passage was obtained by taking the mean score across 121 subjects on a cloze test prepared for each passage.

The relationship between cohesive density and comprehensibility and the relationship between distance and comprehensibility were examined by correlations. The relationship between cohesive type and comprehensibility was examined by comparing the comprehensibility scores of three passages high in reference cohesion with those of three passages high in lexical cohesion. In addition, analysis of variance was used to determine the interaction between cohesive density and reading ability on comprehension.

The results indicate that there is a positive relationship between cohesion and comprehensibility. There was a significant, positive correlation between cohesive density and comprehensibility, as there was between cohesive distance and comprehensibility. It was determined that the relationship between distance and comprehensibility was due to the fact that, for these passages, cohesive distance is a reflection of redundancy and, in effect, measures the same thing as density in this study. A significant relationship was also found between cohesive type and comprehensibility, indicating that passages high in lexical cohesion are easier to read than passages high in reference for seventh graders. No interaction was found between ability and density, indicating that density affects good and poor readers in the same way. It appears from this study that cohesion analysis, as a measure of semantic relationships beyond the sentence level, could be used to supplement readability formulas.

IDENTIFICATION OF ANAPHORA IN EXPOSITORY AND NARRATIVE DISCOURSE BY STUDENTS IN FOURTH, FIFTH, SIXTH AND SEVENTH GRADES

Order No. DA8326920

STRACHAN, LILLIAN EVELYN, ED.D. *University of Washington*, 1983. 171pp. Chairperson: Professor Sam L. Sebesta

Cohesion, the manner in which structurally unrelated items in text depend on each other for interpretation, affects reading comprehension. Students generally experience more difficulty reading exposition than narrative. A failure to comprehend cohesive ties, or anaphora, may be responsible for that difficulty.

The purposes of this study were to investigate: (1) the difference in comprehension of anaphora in narrative and expository prose, (2) the difficulty of four types of anaphora, reference, substitution, ellipsis, and lexical, and (3) the development of anaphoric understanding from fourth through seventh grades.

A sample of 120 students in grades four to seven completed two comparable tests, one expository and one narrative.

No significant differences were found for discourse form, but there were significant differences (.05 level) for anaphoric type and grade level. The analysis of anaphoric type revealed an order of difficulty, easiest to hardest, of reference, lexical, ellipsis, and substitution. No significant differences were found, however, between lexical and ellipsis or between ellipsis and substitution. The analysis of grade level showed a sequential two-yearly increase. Grades six/seven were significantly greater than grades four/five; no significant differences were found between grades four and five or between grades six and seven.

A significant interaction for discourse form and anaphoric type revealed a hierarchy, easiest to hardest, of lexical, reference, ellipsis, and substitution for exposition; reference, ellipsis, lexical, and substitution for narrative.

A significant interaction for grade level and anaphoric type indicated that reference was most easily comprehended by all grade levels. Variability was present for all other types of anaphora across grades.

It cannot be concluded on the basis of this study that comprehension of cohesive ties differs in expository and narrative prose. Nor was a clear-cut hierarchy of difficulty established for the grade levels included. Significant year-by-year growth in understanding did not occur.

Implications point directly to the need to teach all types of anaphora, in all forms of discourse, at all grade levels. Anaphora are clearly not well understood; instruction may improve the ability to comprehend cohesive ties. Training studies to establish instructional strategies and to explore the effects of instruction are needed.

THE RELATIONSHIP BETWEEN INFERENTIAL READING COMPREHENSION AND SELECTED VARIABLES AMONG STUDENTS IN GRADES FOUR THROUGH SIX

Order No. DA8327464

SUMNER, IRA LEONARD, JR., ED.D. *Memphis State University*, 1983. 91pp. Major Professor: Dr. Barbara Burch

Purpose. The purpose of this study was to investigate the relationship between inferential reading comprehension and several other variables that may influence reading performance. Variables to be correlated with inferential reading comprehension were literal comprehension, auditory vocabulary, consonant sounds, vowel sounds, word division, blending, reading rate, age, sex, and I.Q.

Procedures. All 413 pupils in grades four through six enrolled in three selected private schools in a Mid-Southern city participated in the study. The three schools were a coed school, an all-girls' school, and an all-boys' school. The *Stanford Diagnostic Reading Test* was administered to all pupils in grades four through six, and the data were then subjected to statistical analyses.

Findings. (1) Pupils in each grade level (4 - 6) had relatively high mean scores on inferential comprehension which became progressively higher with each successive grade level. (2) On most variables sixth graders had the highest mean scores, followed by fifth graders and fourth graders. (3) The variable sex, in its relationship to inferential comprehension, ranked next to last in fifth and sixth grades and ranked fifth in the fourth grade. (4) I.Q. had a relatively high correlation with inferential comprehension in all three grade levels. (5) When all grades were combined, the age variable was statistically significant. (6) The four variables having the highest correlations to inferential comprehension in all three grade levels were literal comprehension, auditory vocabulary, I.Q., and blending. (7) All variables were positively correlated with inferential comprehension for all three grade levels combined and were statistically significant. (8) Boys had higher mean inference scores than girls in all three grade levels.

Conclusions. (1) Elementary pupils are able to make inferences and do so more proficiently as they grow older. (2) Pupils become more proficient in most reading skills as they grow older. (3) Sex as a factor in the reading process becomes less significant in each successive grade level. (4) Intelligence is an important factor in relation to inferential comprehension. (5) When the range of ages is large, age has a significant influence on inferential comprehension. (6) Elementary boys from culturally advantaged backgrounds whose basic intelligence is equal to that of girls outperform girls in inferential comprehension.

A CORRELATIONAL STUDY OF PIAGETIAN TASKS AND THE ELEMENTS OF UNITY AND COHERENCE IN READING

Order No. DA8327438

WEBB, SHEILA ANNE, PH.D. *The University of Iowa*, 1983. 173pp. Supervisors: Associate Professor John W. Conner, Associate Professor Darrell G. Phillips

The questions this study addresses are listed below: (1) What is the correlational relationship between the elements of unity and coherence in reading and logical thinking structures as identified by Piagetian tasks? (2) Does age influence this relationship? (3) Does sex influence this relationship? (4) Which is more difficult to identify--unity or coherence? (5) Is there a developmental order in arriving at synthesis?

Forty Caucasian students equally divided into tenth and twelfth grades and equally composed of males and females participated in two individual interviews, one for reading tasks and one for Piagetian tasks.

The reading tasks utilized five passages. Students identified unity and coherence in each passage, then assembled the passages into subsets by two's and three's, then synthesized all five into a common category. The Piagetian tasks represented Infralogical Projective IV, Concrete Operational Logical Grouping VIII, and the Formal Operational Stage.

The McNemar test for significance of changes and the x^2 test for independent samples were used to analyze data.

Of this population, only a small minority used formal operational structures. An equally small minority could pass the coherence task. Students had difficulty dealing with cause-effect relationships and "if . . . then" implications. Students utilized syncretic reasoning in dealing with the reading tasks.

The development of Infralogical Projective IV must be present to successfully perform the reading tasks. It appears Concrete Operational Logical Grouping VIII is required for the coherence task.

Generally, twelfth grade students showed a slight superiority over the tenth grade students on all tasks, but the coherence task showed a significant grade level difference at .05 because only twelfth grade students passed it. There was no significant difference between male and female ability.

Coherence was the most difficult element to identify in the reading tasks. The developmental order for synthesis was unity, subsets, and synthesis. Coherence was more difficult to identify than to make the formation of synthesis.

Findings of this study foster Bloom's Taxonomy, encourage Henry's method in *Teaching Reading and Concept Development: Emphasis on Affective Thinking*, and emphasizes that Piagetian theory translates into the Language Arts.

THE RELATIONSHIP BETWEEN PERCEIVED TEXT STRUCTURE, FAMILIARITY OF CONTENT, AND RECALL OF EXPOSITORY TEXT

Order No. DA8402885

WETMORE, MARY ELIZABETH, PH.D. *University of Virginia*, 1983. 142pp. Major Adviser: Dr. Thomas H. Estes

The majority of research in the area of reading comprehension has focused only on the "product" of comprehension. Comprehension as a "process" is what happens to readers as they read and what they do to make this happen. Comprehension as a "product" is the net result of the "process" measured in some more or less objective way with standardized tests, informal reading inventories, or paraphrastic recalls. The "processes" of comprehension are generally assumed to be elusive and, for the most part, inaccessible. Researchers, therefore, have had to draw inferences about the "processes" readers must have used from the "products" they provide. By contrast, this study introduces techniques which may shed direct light on some of the "processes" involved in reading comprehension.

Tasks were developed for analyzing the effect of perceived text structure and background knowledge on comprehension and recall. These tasks were presented to approximately 100 undergraduates at the University of Virginia within the context of purposeful reading experiences with expository text selections.

The results of analyses suggest that (1) readers who are better at identifying important information in text are also better at recalling information; (2) readers recall more information they perceive to be important than information they perceive to be unimportant; (3) comprehension of abstract, technical passages is highly dependent on background knowledge; (4) comprehension of concrete, straightforward passages, passages for which readers have some affinity, is dependent on ability to identify important ideas; (5) SAT test scores, at the present time, may be the best predictor of success in learning from textbooks; and (6) explicitly determining the ideas in expository text and rating their importance and familiarity may aid comprehension and recall of selections that are abstract, technical, and conceptually difficult.

A STUDY OF GIFTED READERS: METACOGNITION AND USE OF COMPREHENSION STRATEGIES

Order No. DA8400989

WINGENBACH, NANCY GARD, PH.D. *Kent State University*, 1983. 186pp. Director: Gladys P. Knott

Traditional and ethnographic research procedures were used to investigate the reading comprehension process employed by gifted readers. The study focused upon specific components of reading comprehension as a problem solving process. The first focus was the identification of specific comprehension strategies used in comprehension of a reading passage (reading strategies) and in answer selection on multiple choice questions (reasoning strategies). The second focus was the examination of metacognition as exhibited by the gifted reader. Metacognition involves the awareness, control, use, and evaluation of comprehension strategies. A third focus was upon grade level differences in strategy use and metacognition.

Traditional research procedures were used with 100 gifted students in grades 4, 5, 6, and 7. These students had been identified as gifted according to the local school system criteria. The *Iowa Tests of Basic Skills*, Reading Comprehension subtest (levels 11 and 13) was administered, scored, and analyzed. A questionnaire, developed to explore the use of reading and reasoning strategies and metacognitive awareness, was also administered to this group.

Ethnographic research procedures were used with 20 gifted students selected from the larger group. Five students from each grade with the highest grade equivalence results on the reading comprehension subtest were selected for participation in the protocol analysis and interview sessions. These procedures allowed for identification of reading and reasoning strategies employed, examination of metacognitive awareness of the reading process, and investigation of grade level differences in strategy use and metacognition.

The results of this study indicated that the reading comprehension process of gifted readers involved the use of specific reading and reasoning strategies. Gifted readers were metacognitively aware of strategies available, selection among and application of strategies, and effectiveness of strategies used. Grade level differences in strategy use and metacognition were minimal.

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